

REMARKS

Initially, Applicant would like to express appreciation to the Examiner, Ms. Robyn Doan, for the courtesy of the interview conducted with his attorney, Ms. Linda Hodge, on April 19, 2010. During the interview, the claims were discussed and compared with the prior art applied by the Examiner in the rejections, *i.e.*, CARLUCCI et al. (U.S. 5,921,254) and IMAI et al. (U.S. 5,170,809). The Examiner clarified the reading of the IMAI et al. reference in the rejection, in that the “flosser element” has been read as the elements 71E and 85E of IMAI et al. The Examiner suggested amending the claims to further define the floss by setting forth “a plurality of floss strands” or “a plurality of floss strings”. Accordingly, Applicant has presented claims 1 and 2, amended to set forth “a plurality of floss strands”, in order to obtain an early allowance of the claims of record. Dependent claims have been amended or canceled to comport with the amendments to claims 1 and 2.

Applicant would also like to express appreciation for the detailed Final Official Action provided.

However, Applicant notes that the Examiner has not acknowledged Applicant’s **Claim for Priority** and receipt of the certified copy of the priority document. It is noted that the Patent Application Information Retrieval (PAIR) system on the U.S. Patent and Trademark Office website reflects receipt of Applicants’ Claim for Priority and the certified copy of the priority document on January 24, 2006 in the instant application. Accordingly, the Examiner is requested to acknowledge receipt of Applicant’s Claim for Priority and receipt of the certified copy of the priority document in the next Official Action.

Upon entry of the above amendment, claims 1, 2, 4, 7, 8, 11, and 15 will have been amended; and claims 9 and 16 will have been canceled. Accordingly, claims 1, 2, 4-8, and 10-15 are currently pending. Applicant respectfully requests reconsideration of the outstanding rejections and allowance of claims 1, 2, 4-8, and 10-15 in the present application. Such action is respectfully requested and is now believed to be appropriate and proper.

Claims 1, 2, 4-9, and 12-16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over CARLUCCI et al. (U.S. 5,921,254) in view of IMAI et al. (U.S. 5,170,809).

Although Applicant does not necessarily agree with the Examiner's rejection of claims 1 and 2 on this ground, nevertheless, Applicant has amended independent claims 1 and 2 to clearly obviate the above noted ground of rejection in order to expedite prosecution of the present application. In this regard, Applicant notes that CARLUCCI et al. and IMAI et al. fail to teach or suggest the subject matter claimed in amended claims 1 and 2. In particular, claim 1, as amended, sets forth an electric dental flosser apparatus including, inter alia, “a drive shaft rotationally oscillatable about its own axis; a drive mechanism operable to rotationally oscillate the drive shaft about its own axis; a floss holder mounted on the drive shaft so as to be oscillated rotationally by the drive shaft; and a plurality of mutually spaced floss strands stretched on the floss holder; wherein the plurality of mutually spaced floss strands are held taut in a direction perpendicular to an axial direction of the drive shaft so that one of the plurality of mutually spaced floss strands passes across an extension line of the drive shaft”. Claim 2, as amended, sets forth an electric dental flosser apparatus including, inter alia, a drive shaft rotationally

oscillatable about its own axis; a drive mechanism operable to rotationally oscillate the drive shaft about its own axis; a floss holder mounted on the drive shaft so as to be oscillated rotationally by the drive shaft, the floss holder comprising a forked floss holding portion having a proximal end portion and opposite distal end portions; and a plurality of mutually spaced floss strands stretched taut between the opposite distal end portions of the floss holding portion; wherein an intermediate portion of a line connecting an intermediate portion of one of the plurality of mutually spaced floss strands and the proximal end portion of the floss holding portion is positioned on an extension line of the drive shaft”.

This amendment is fully supported by the specification, including the claims and drawings, and no prohibited new matter has been added. Support for the above amendments may be found at least on page 16, line 20 through page 17, line 5 of the specification; and in figure 15.

The electric dental flosser of the present invention includes a dental flosser body 2, a drive shaft 4 projecting from the end portion of the dental flosser body 2, and a floss holder 3 mounted on the drive shaft 4. The axis of the drive shaft 4, oscillatable about its own axis, is coaxial with the longitudinal axis of the dental flosser body 2, as shown in figure 1B. The neck portion 8 curves away from the proximal end portion of the floss holder 3 so that the neck portion 8 is spaced from the extension line A; and the floss holding portion 6 holds a floss strand 5 that extends in a direction perpendicular to the axis of the drive shaft 4, and passes across the extension line A. Accordingly, the configuration of the electric dental flosser of the present invention provides that when the motor 12 is driven, rotation of the motor shaft 15 causes rotational oscillation of the drive

shaft 4 about its longitudinal axis and rotational oscillation of the floss holder 3, causing rotational oscillation of both the floss holding portion 6 and the floss strand 5 about the extension line A of the drive shaft 4.

Additionally, in embodiment shown in figure 15, a plurality of floss strands or strings 5 are stretched on the floss holder 3. In the example of figure 15, two floss strands 5 are held taut between the opposite distal end portions of the floss holding portion 6 so as to extend parallel to each other in a direction perpendicular to the drive shaft 4. In a preferred embodiment, the distance F between the two floss strands 5 is, for example, about two millimeters. Further, in a preferred embodiment, the distance G between the inwardly positioned floss strand 5 and an internal side wall of the intermediate portion of the floss holding portion 6 is, for example, in the range of 10-15 millimeters, considering insertion of the plurality of floss strands 5 in between the teeth.

As shown and as described above, the provision of the plurality of floss strands provides additional flossing action to the teeth surfaces, and provides improved and effective flossing.

The CARLUCCI et al. patent discloses an electric dental flosser including a rotatable drive shaft, a drive mechanism, a floss holder, and one strand of floss stretched on the floss holder. As recognized by the Examiner, the CARLUCCI et al. patent fails to teach or suggest the floss strand held perpendicular to the drive shaft to pass across an extension line of the drive shaft, an intermediate portion of the floss strand positioned on an extension line of the drive shaft, and an inclined floss holding portion. Additionally, Applicant notes that the CARLUCCI et al. patent fails to teach or suggest a plurality of mutually spaced floss strands stretched between the end portions of the floss holding

portion, as set forth in amended claims 1 and 2. CARLUCCI et al. also fails to teach or suggest a plurality of spaced floss strands that are held perpendicular to the drive shaft axis so that one strands passes across an drive shaft extension line, as set forth in amended claim 1; and an intermediate portion of a line connecting a floss strand and the end portion of the holding portion that is positioned on a drive shaft extension line, as set forth in amended claim 2.

The IMAI et al. patent is directed to an electric dental flosser including a drive shaft, a drive mechanism, a floss holder 70C with a forked floss holding portion, a floss 71E held on the floss holder, and a pair of bulbs 85E. A bulb 85E is provided at each end of the floss 71E. Each bulb 85E engages a corresponding notch 86E in a forked end of the floss holder, to hold the floss 71E taut between the forked ends. See particularly column 5, lines 60-64; and figure 12.

Thus, the IMAI et al. device includes a single floss strand. IMAI et al. fails to teach or suggest a plurality of mutually spaced floss strands. Further, IMAI et al. fails to teach or suggest “a plurality of mutually spaced floss strands stretched on the floss holder; wherein the plurality of mutually spaced floss strands are held taut in a direction perpendicular to an axial direction of the drive shaft so that one of the plurality of mutually spaced floss strands passes across an extension line of the drive shaft”, as set forth in amended claim 1. IMAI et al. also fails to teach or suggest “a plurality of mutually spaced floss strands stretched taut between the opposite distal end portions of the floss holding portion; wherein an intermediate portion of a line connecting an intermediate portion of one of the plurality of mutually spaced floss strands and the

proximal end portion of the floss holding portion is positioned on an extension line of the drive shaft”, as set forth amended claim 2.

Therefore, the IMAI et al. patent fails to cure the deficiencies of the CARLUCCI et al. device, and even assuming, arguendo, that the teachings of CARLUCCI et al. and IMAI et al. have been properly combined, Applicant’s claimed electric dental flosser would not have resulted from the combined teachings thereof.

Further, there is nothing in the cited prior art that would lead one of ordinary skill in the art to make the modification suggested by the Examiner in the rejection of claims 1 and 2 under 35 U.S.C. § 103(a) over CARLUCCI et al. in view of IMAI et al. Thus, the only reason to combine the teachings of CARLUCCI et al. and IMAI et al. results from a review of Applicant’s disclosure and the application of impermissible hindsight. Accordingly, the rejection of claims 1 and 2 under 35 U.S.C. § 103(a) over CARLUCCI et al. in view of IMAI et al. is improper for all the above reasons and withdrawal thereof is respectfully requested.

Applicant submits that dependent claims 4-8 and 10-15, which are at least patentable due to their dependency from claims 1 and 2 for the reasons noted above, recite additional features of the invention and are also separately patentable over the prior art of record based on the additionally recited features. Accordingly, claims 4-8 and 10-15 are each separately patentable for these additional reasons.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejections, and an early indication of the allowance of claims 1, 2, 4-8, and 10-15.

SUMMARY AND CONCLUSION

In view of the foregoing, it is submitted that the present amendment is proper for entry since it clarifies the language describing the arrangement of the floss, which is an issue about which Applicant has already presented arguments, and it is also submitted that none of the references of record, considered alone or in any proper combination thereof, anticipate or render obvious Applicant's invention as recited in claims 1, 2, 4-8, and 10-15. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Accordingly, consideration of the present amendment, reconsideration of the outstanding Final Official Action, and allowance of the present amendment and all of the claims therein are respectfully requested and now believed to be appropriate.

Applicant has made a sincere effort to place the present application in condition for allowance and believe that he has now done so.

Any amendments to the claims which have been made in this amendment, which do not narrow the scope of the claims, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered cosmetic in nature, and to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should there be any questions, the Examiner is invited to contact the undersigned
at the below listed number.

Respectfully Submitted,
Haruhiko NARUSE

A handwritten signature in black ink, appearing to read "Linda J. Hodge". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Linda J. Hodge
Reg. #47,348

Bruce H. Bernstein
Reg. No. 29,027

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GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191